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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,734	04/13/2001	Masami Shirosaki	50088-057	6428

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Washington, DC 20005-3096

EXAMINER

MALDONADO, JULIO J

ART UNIT PAPER NUMBER

2823

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/833,734

Applicant(s)

SHIROSAKI ET AL.

Examiner

Julio J. Maldonado

Art Unit

2823

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 July 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 1 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:


Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 6-10 and 12-17.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_.

  
George Fourson  
Primary Examiner

Continuation of 2. NOTE: The amendment filed on 07/24/2003 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance and will not be entered because: The proposed amendment raises new issues that would require further consideration and/or search. The amended independent claims now add the limitation "sequentially" where there was no mention within the claims of this limitation. While this places the application in better condition for allowance, it raises new issues into the prosecution of the instant application and would thus provide grounds for a new search.

Continuation of 5. does NOT place the application in condition for allowance because: Applicants argue, "...the...Office Action dated April 21, 2003 has incorrectly been designated as final... applicants submit that the amendment made to claim 12 was for cosmetic purpose to improve clarity...". In response to this argument, the amendment on claim 12 included "...within which said core remains...". In the original presentation, claim 12 was open to a step of removing the core, followed by forming a dielectric layer and a cell plate thus completing a capacitor as recited in claim 1. By adding the above-mentioned amendment, applicants narrowed claim 12 and new references were necessitated to reject the claim and therefore, the finality as set forth in paper mailed on 08/20/2002 is proper. Also, applicants argue, "...Claim 7 is cosmetically amended...". In response to this argument, claim 7 originally recited, "wherein an outer wall of said cylindrical portion is roughened, comprising forming amorphous silicon on said core and said bottom portion; conducting an anisotropic etching to form a sidewall like cylindrical portion at the side of said core and said bottom portion; and roughening an outer surface of said amorphous silicon by forming silicon grains in the outer surface of it to thereby form said cylindrical portion...". Now, claim 7 recites, "...wherein an outer wall of said cylindrical portion is roughened, comprising forming an amorphous silicon film on said core and said bottom portion; conducting an anisotropic etching of said amorphous silicon film to form said cylindrical portion having side-wall like shape at the side of said core and said bottom portion; and roughening said outer wall of said cylindrical portion by forming silicon grains...". Claim 7 originally recited roughening an outer surface of the amorphous silicon film. The claim originally was open to roughening a portion of the amorphous silicon layer, as shown in Fig.2(e), for example. Now the claim recites roughening the outer sidewall of the amorphous silicon layer, further limiting the claim. Therefore, the amendments on claim 7 are not cosmetic and will not be entered.

Furthermore, regarding the rejection to claims 12-18 over Hsieh et al. in view of AAPA, DeBoer et al. and Dennison et al. applicants argue, "...the Office Action did not make it clear where the prior art discloses the motivation to combine the teachings of those references...". In response to this argument, the selection of a known material based on its suitability for its intended use is *prima facie* obviousness. See MPEP 2144.07. In this case, it is well-known to leave the "core" as claimed; followed by forming a dielectric layer and forming a capacitive plate as well as removing the core, followed by forming the dielectric layer and the capacitive plate.

Furtherstill, regarding the rejection of claims 12-18, applicants argue, "...Dennison et al. also discloses that 'removal of layer 38 is preferred to further maximize the exposed area for capacitance by utilizing the outer sides of rings 42'...". This argument is respectfully traversed because, although not taught as a preferred embodiment, Dennison et al. teaches this embodiment nonetheless, and disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In re Gurley, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including nonpreferred embodiments. Merck & Co. v. Biocraft Laboratories, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). Even a teaching away from a claimed invention does not render the invention patentable. See Celeritas Technologies Ltd. v. Rockwell International Corp., 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998), where the court held that the prior art anticipated the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed." To further clarify, a prior art opinion that a claimed invention is not preferred for a particular limited purpose, does not preclude utility of the invention for that or another purpose, or even preferability of the invention for another purpose.

Still, applicants argue, "Hsieh et al. and DeBoer et al. disclose a step of removing the 'core', but do not disclose the 'core' remains. AAPA is silent on the 'core'...". In response to this argument, neither Hsieh et al., DeBoer et al. or the AAPA was relied upon for that purpose.

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